WHAT IS CLAIMED IS:

1. A node-search method in a network, comprising the steps of:

acquiring a packet which includes routing information in which a domain in the network is listed;

sending a broadcast packet, for requesting a response from a node which provides a specific service, to said domain which is listed in said acquired routing information; and

receiving a response packet for said broadcast packet and detecting the node which sent the response packet.

2. A node-search method in a network, comprising the steps of:

sending a packet, for requesting routing information from the network which is connected to an interworking unit, to the interworking unit, which is capable of storing routing information set in advance;

receiving a packet containing said routing information;

sending a broadcast packet, for requesting a response from a node that provides a specific service, to a domain which is listed in said received routing information; and

receiving a response packet in response to said broadcast packet, and detecting the node which sent the

response packet.

3. A node-search method for searching for a node providing service in a network configured with a plurality of domains, comprising:

a first process for searching for all of the domains of the network, and

a second process for searching for nodes which provide a specific service in at least one of the domains which is contained in a search result in said first process.

4. A node-search method in a network, comprising the steps of:

receiving a RIP (Routing Information Protocol) packet;

acquiring information indicating a network number and an address of a router of each domain in the network from said received RIP packet; and

broadcasting, based on said acquired information, into a specific network so as to search for a node, using a specific port number.

5. A node-search device for searching for a node in a network, comprising:

network interface means for connecting with the network;

means for acquiring domain information from a packet

containing routing information which was acquired by said network interface means;

means for finding broadcast addresses for said domains;

means for generating a request packet to be sent to said found broadcast addresses for finding a response from a node which provides a specific service, and sending the packet to the network through said network interface means; and

means of extracting information indicating that indicates nodes which perform said specific service, which is contained in a response packet to said request packet.

6. A node-search device for searching for a node in a network, comprising:

means for sending a packet, for requesting routing information for a network connected to an interworking unit, to the interworking unit, which is capable of storing preset routing information;

means for receiving a packet containing said routing information and acquiring information indicating a node contained in said routing information;

means for sending a request packet, for requesting a response from a node which provides a specific service, which is broadcasted domains connected through the interworking unit, to the interworking unit; and

means for receiving a response packet for said request packet and detecting the node which sent the response packet.

7. A computer-readable storage medium in which a program which is executed by a computer for searching for a node in a network is recorded, wherein:

said program makes the computer execute:

a process of acquiring a packet containing routing information in which a domain in the network is listed, which is sent to the network;

a process of sending a broadcast packet, for requesting a response from a node which provides a specific service, to said domain which is listed in said acquired routing information; and

a process of receiving a response packet for said broadcast packet and detecting the node which sent the response packet.

8. A computer-readable storage medium in which a program which is executed by a computer for searching for a node in a network is recorded, wherein:

said program makes the computer execute:

a process of sending a packet, for requesting routing information in the network which is connected to an interworking unit, to the interworking unit, which is

capable of storing routing information set in advance;

a process of receiving a packet containing said routing information;

a process of sending a broadcast packet for requesting a response from a node which provides a specific service, to a domain which is listed in said received routing information; and

a process of receiving a packet in response to said broadcast packet, and detecting the node which sent the response packet.

9. A storage medium in which a program is stored, according to Claim 8, wherein:

said interworking unit is a router.

10. A computer-readable storage medium for storing a program which is executed by a computer for searching for a service providing node in a network configured with a plurality of domains, wherein:

said program makes the computer execute:

a first process for searching for all of the domains of the network, and

a second process for searching for a node providing a specific service in at least one of the domains which is contained in a search result in said first process.

11. A storage medium in which a program is recorded, according to Claim 10, wherein said program makes the computer execute the steps of:

in said first process, sending a packet requesting routing information to a device in which the routing information is stored so as to acquire information indicating the domains, and

in said second process, receiving operation designating at least one domain from said acquired information indicating the domains, broadcast sending a server name request packet requesting a node name of the node providing the specific service to the designated domain, and creating a server list from server names contained in a response packet for the server name request packet.

12. A storage medium in which a program is recorded, according to Claim 11, wherein said program further makes the computer execute the steps of:

in said second process, receiving operation designating the kind of the service which is provided by said node, and broadcast sending a server name request packet for requesting a node name of a node providing the designated service.

13. A computer-readable storage medium in which a program which is executed by a computer for searching for a service

providing node in a network configured with a plurality of domains is recorded, wherein:

said program makes the computer execute:

a process of receiving a RIP (Routing Information Protocol) packet;

a process of acquiring information indicating a network number and mail address of each domain in the network from said received RIP packet; and

a process of broadcasting, based on said acquired information, into a specific network so as to search for a node, using a specific port number.

14. A computer-readable storage medium in which a program which is executed by a computer for searching for a service providing node in a network configured with a plurality of domains, wherein:

said program makes the computer execute:

a process of receiving an SNMP (Simple Network Management Protocol) packet;

a process of acquiring information indicating a network number and an address of a router of each domain in the network from the received SNMP packet;

a process of broadcasting into a specific network, based on said acquired information so as to search for a node, using a specific port number.